

Date: Tue, 5 Jan 93 10:06:09 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #19
To: Info-Hams

Info-Hams Digest Tue, 5 Jan 93 Volume 93 : Issue 19

Today's Topics:

 3rd hand soldering
 Aluminum tubes in Bay Area.
CFD: proposal for rec.radio.amateur.standup.philosophy
 Need a 3rd hand for Soldering!?
 telemetry transceivers
 Unix Morse Code Program
 Wanted: ICOM IC-726 MOD Information
 Who do repeater coordinators represent?
 Yeasu FT-470 mods?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 5 Jan 93 16:41:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: 3rd hand soldering
To: info-hams@ucsd.edu

I've never wished for three hands (while on land), but there are tricks
for soldering.

- 1) A bench vise. Holds connectors well. Keeps fingers cool. Particularly
for PL-259. Also good for the center pin of a BNC connector.
- 2) A good mechanical joint. A prerequisite for a good solder joint.
(As taught in NASA soldering school.) Unfortunately this may mean clinching
leads on a printed circuit board that makes desoldering of this component
more difficult. On DIPs I clinch Vcc and GND (or opposite corners).
On Surface mount I 'glue' the device with warmed flux and hold it down

until it cools. Then I start soldering opposite ends, working around the chip in the same direction. (Non-Reflow, only)

3) My favorite trick. Heat the larger (less delicate) of the two halves until solder JUST starts to melt. Remove the iron and cram the solder into the joint as to cool the joint rapidly, leaving the solder afixed the the joint. (This is the part that takes practice.) Break the solder with the iron tip ~1-2 cm. With hand #2 position second item on the solder joint. Reheat the joint until the fresh solder flows freely.

73 de Skip, NT1G Three most important rules for soldering:

Cleanliness, cleanliness and cleanliness. (NASA)

P.S. NEVER hold lead solder in your mouth!

(They used to make a big deal about this all through out the class)

Date: Tue, 5 Jan 1993 16:41:53 GMT

From: sdd.hp.com!spool.mu.edu!sgiblab!news.kpc.com!kpc!nat@network.UCSD.EDU

Subject: Aluminum tubes in Bay Area.

To: info-hams@ucsd.edu

I desinged a triband dipole antenna for 10, 15, 20 meters and decided to implement it. I went around the bay area looking for Aluminum tubing and here is what

I came up with.

Orchard Supply Hardware sells only 12' 1"od 0.055" wall thickness anodized tube for \$21.29.

Ace Hardware sells tubing in 6' sections 1" 7/8" 3/4" 5/8" 1/2" od 0.049" wall thickness and the cost ranges from \$14 - \$9.

Pipe Service of Milpitas sells tubing in 12' sections at about 1.5 to 2.0 times the above prices.

I called some electic supply houses and they sell Aluminum Thinwall Rigid conduit. These come as 10' sections 1/2" 3/4" 1" 1 1/4" id and so on. The cost for the 1" is around \$12 and the 3/4" is around \$9. The wall thickness for the 1" is around 0.025".

Could some antenna guru tell me if I should build the antenna with the thinwall stuff or should I go for the thicker stuff. Could someone suggest some other source for the tubing in the Bay area. If I get inundated with replies I will post a summary to the news group.

Thanks in advance.

Natarajan Gurumoorthy KD2ZS/6.

--

Natarajan Gurumoorthy Kubota Pacific Computer, Inc.
nat@kpc.com 2630 Walsh Avenue
Phone 408 987 3341 Santa Clara, California 95051.

Date: 5 Jan 1993 17:46:55 GMT
From: usc!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!kurt@network.UCSD.EDU
Subject: CFD: proposal for rec.radio.amateur.standup.philosophy
To: info-hams@ucsd.edu

I would like to propose a new group for the continuing discussion of sociopoliticotecnologic subjects pertaining to Amateur Radio. These discussions would be in the form of allegories, parallels, parables, and "I heard that"'s. Literary shredding is encouraged, without regard to race, religion, national origin, license class, lack of license (amateur or literary), or accuracy.

This is in order to formalize an already-existent situation.

Suggested subjects are:

Closed Repeaters
Coordination
CW
CodeFree Licensing
FCC peccadillos
Spelling
BBS hierarchial addressing
Packet operations in general
Armchair Law Practice
Excessive Inclusion of Previous Postings
HF Forwarding
Antenna Restrictions
Covenants
ARRL griping (a possible candidate for r.r.a.s.p.arrl)

Cultivation of senses of priority, perspective, human relations, and humor is encouraged.

Harrumph.

--

Kurt Freiburger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578
Dept. of Computer Science, Texas A&M University DoD #264: BMW R80/7 pilot
"We preserve our freedom using three boxes: ballot, jury, and cartridge."
*** Not an official document of Texas A&M University ***

Date: Tue, 5 Jan 1993 15:26:21 GMT
From: swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: Need a 3rd hand for Soldering!?
To: info-hams@ucsd.edu

In article <1993Jan4.222522.20042@news.columbia.edu> hyx1@cunib.cc.columbia.edu
(Harry Y Xu) writes:

>I always feel like my 2 hands are not enough when soldering.
>1 hand holds the soldering iron;
>1 holds the solder;
>another hand is needed to hold the component, or the pliers that hold the
>component to prevent over-heating.
>
>Does anyone have a smart solution?

Sure, it goes by the trade name of The Third Hand. It's basically a
C clamp base with #12 solid wires coming out of it. Each wire has
an alligator clip, a magnifier, or other handy tool attached. You
clamp the parts in the clips and bend the wires so they are in the
proper relationship, then solder away.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: Tue, 5 Jan 1993 16:35:32 GMT
From: nwnexus!amc-gw!chuckb@uunet.uu.net
Subject: telemetry transceivers
To: info-hams@ucsd.edu

Does anyone know of inexpensive telemetry transceivers
suitable for use in RC model airplanes?
Please respond via email, thanks in advance.

chuck

--

Chuck Baldwin KB7KUI (800)-275-4262 work chuckb@amc.com

c/o Applied Microsystems Corporation
PO Box 97002

Date: 5 Jan 93 17:33:54 GMT
From: sdd.hp.com!wupost!spool.mu.edu!hri.com!noc.near.net!inmet!cobra!
bwhite@network.UCSD.EDU
Subject: Unix Morse Code Program
To: info-hams@ucsd.edu

Someone recently posted the location of sources for a Unix (Sun? X11?)
program for Morse code learning. Can some kind soul who was more
forward thinking than I please remind me of the path? Thanks in
advance. (Email is probably better than posting.)

Peace,
Bill White
<bwhite@cobra.camb.inmet.com>

Date: 5 Jan 93 15:31:32 GMT
From: psinntp!gdc!gallagher@uunet.uu.net
Subject: Wanted: ICOM IC-726 MOD Information
To: info-hams@ucsd.edu

I tried to post this early but have not seen it appear yet. If this is a repeat
I apologize.

What I am really looking for is a FTP site that may have any information on
the ICOM IC-726. If an FTP site is not available and you can e-mail any info.
to me I would greatly appreciate it.

Thanks in advance,

Rob - N1CXH

--

* *
* Robert Gallagher *
* email - gallagher@gdc.com *
* tele: (203) 758-1811 ext. 7565 *
* *

Date: Tue, 5 Jan 1993 14:40:17 GMT
From: swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: Who do repeater coordinators represent?
To: info-hams@ucsd.edu

In article <1993Jan4.143616.19209@ulb.isc.rit.edu> cep4478@ulb.isc.rit.edu (C.E. Piggott) writes:

>
>One problem is that there is no practical way to say, "There are enough
>two meter repeaters in this area - try 900 or 1200". As a 'self-
>regulated' radio service, we aren't doing a very good job in this
>respect. Amateur radio is by no means isolated, either - two examples
>close to home are a 450 commercial repeater on campus, so that the
>stage crew can talk in a one-mile radius around campus, and an
>STL frequency given to our campus broadcast station so they can
>link the studio to the transmitter -- 1/4 mile away.

The FCC is dealing fairly aggressively with the commercial frequency problems. In land mobile service, they've long required channel sharing, and now trunking and cellular are the buzzwords in favor. And in broadcast STL use, I just completed supervising the mandated upgrading of three STL links from 4 foot to 8 foot dishes on each end so that the frequencies could be spatially reused by other broadcast stations in the area. At microwave, it's routine to reuse the frequencies based on careful path analysis and narrow beams.

Amateurs' continued insistence on exclusive channels with wide area omni coverage is increasingly out of step with commercial practice. Wide area exclusive coverage does have advantages in amateur use in that it allows a large number of mobile users to communicate. Thus *open* repeaters with wide coverage and exclusive channels serve a valid purpose. I don't think local machines, or closed machines with few users, serve this purpose well, however, and should likely be required to use channel sharing schemes such as PL anti-PL and the like. Ideally, the closed system owners would *cooperate* and establish trunking systems to give wide area coverage to their users on shared channel space and equipment.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: Tue, 5 Jan 1993 15:22:28 GMT
From: swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: Yeasu FT-470 mods?
To: info-hams@ucsd.edu

In article <9301041923.AA01850@mwunix.mitre.org> m22755@mwvm.mitre.ORG (Terry Alford) writes:

> A few weeks ago, I purchased an FT-470 2m/70cm HT. I've been monitoring
>this newsletter for about 2 months, but so far have found no references to any
>mods pertaining to this HT. I do not have access to ftp, but would welcome e-
>mail, or a posting here advising me of possible mods to increase receive
>bandwidth, etc. --- or any other information of interest about this model.

That's because it's **perfect** as it comes out of the box. :-)
The only worthwhile mods I know of are to the abysmal drop in
charger. There is a keystroke mod that opens up receive coverage
to extraneous frequencies, but sensitivity isn't that great.
I'd love to see a mod to improve intermod rejection that actually
worked, but I suspect the required power consumption and space
for the cavities would make it impractical to hang on your
belt.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: Tue, 5 Jan 1993 15:09:58 GMT
From: swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Jan2.184109.13079@mnemosyne.cs.du.edu>,
<eNTRwB1w164w@ham.almanac.bc.ca>, <1993Jan4.144520.19597@ulthb.isc.rit.edu>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Packet Repeaters was(Re: Who do repeater coordinators represent?)

In article <1993Jan4.144520.19597@ulthb.isc.rit.edu> cep4478@ulthb.isc.rit.edu (C.E. Piggott) writes:

>
>Statements like "I heard packet works better through a repeater" concern
>me (not that you said that - I've just heard it before). One of the
>potential strengths of packet is as a distributed, redundant system.

>Adding a repeater greatly reduces collisions, but at a significant
>expense:

>
> - the repeater is a single point-of-failure, and
> many people will not be able to or know
> how to operate without it when the repeater
> dies
>
> - repeater coverage rarely stays localized. After
> a while, a better antenna, more power, etc.
> and you wind up with a wide-coverage packet
> repeater that is jammed up.

That's true, but it's also true that most packet groups are sparse
enough that high site nodes are required *anyway* to maintain connectivity,
and they also serve as a single point failure *and* as a magnet for congestion.
Therefore these arguments apply equally to them. The fact is that a repeater
just works much better than a high site simplex node for packet.

If you stick with just home stations and multi-hop links, then you're
generating even more congestion since each packet is transmitted multiple
times. Home sites are unfortunately not engineered to be non-interfering
cells. And one home station shutting down can fragment the network if it
is the only link between two subnets. That's very common in rough terrain
with sparse networks. The channel delay of multiple hop transmissions also
turns a slow service into an infuriatingly slower service.

Repeaters for packet should best be thought of as large, controlled
coverage cells. Linked by a high speed backbone, they offer high
thruput while minimizing the interference common to simplex networks.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: 5 Jan 1993 17:22:31 GMT
From: sdd.hp.com!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!kurt@network.UCSD.EDU
To: info-hams@ucsd.edu

References <C0A7J9.7tL@NeoSoft.com>, <1ia9j8INN127@transfer.stratus.com>,
<8319@lib.tmc.edu>
Subject : Re: Closed repeaters

In article <8319@lib.tmc.edu>, jmaynard@oac.hsc.uth.tmc.edu (Jay Maynard) writes:
|> OK...but let's add some more things to make your analogy even closer: First of
|> all, the highway has hundreds of lanes. Second, the lane Jim's Porsche is in
|> is one of the most heavily traveled lanes on the highway. Third, there are
|> spots on the highway where, if you cross them at exactly 88 miles an hour,
|> you're teleported somewhere you're thinking of, but if your speed is off, you
|> wind up in weird worlds you can never get out of. Fourth, as the highway winds
|> through Texas, there are others on it who Jim shares the lane with peacefully
|> and cooperatively.
|>
|> Now, what's the problem? A lane like that needs to be blocked off so the
|> unwary aren't trapped.

There is precedent - HOV lanes.

SOAPBOX ON

All this crap may be boiled down to a few salient points.

1. Repeaters perform a SERVICE - that of increasing one's range of communications, all other features notwithstanding.
2. The ever-present overpopulation problem is still with us.
St. Malthus, protect us! Run, lemmings, run!
3. The presence of the "haves/have-nots" is quite prevalent.
4. The burning need to "exercise our Gawd-given rights" is running amok, with attendant "damn the torpedoes, full-speed ahead" attitudes.

Folks fed up with a situation on a repeater (such as overcrowding) were told "Hie thee off to the hinterlands of 450 Mhz, where there is spectrum in abundance". So they did. Life became fairly normal. Now that the 2 meter folks have trashed their environment, the Masses look to 450 as the next spawning ground. The 450 types shudder at the portents of this dark Exodus, hoping that 220 will stave off the flow. Then UPS et al salt the well of 220, and the Hordes descend. The Righteous declare, after all empty channels are filled, "These heathens have no right to deny our right to transmit freely!", so the Crusade begins. The Demons of the Closed Repeaters are cajoled, with honey-sweet tongues, "You should open your doors so that ye may bask in the path of Righteousness, and serve your fellow Man". Rebuffed, they exclaim to the Radio Pharisees, "Confine these heretics to Ghetto Channels, that the Spectrum shall be purified!" The Pharisees refuse, that they may avoid the wrath of the Litigious, and hold to the Principle of the Just: "First-come, first-served; the only Fair Way". The Righteous exclaim, "We shall harass the Heretics, until they release the Spectrum, for we are Righteous and

shall prevail."

Written with tongue firmly planted in cheek, but if folks will think about this, it is a basic problem that is replayed ad infinitum in many ways: Religion (close fit, eh?), Ethnic situations, Poverty, etc. In many ways, the situation we have could erupt into the equivalent of the L. A. riots, but it should never come to that. Those that remember the early Repeater Wars are surely watching with wry humor and disdain.

The process of sharing the spectrum is not one of "right to transmit", but "what may be done in the present environment". I can't start my own country right in the middle of Texas, even though I might not see any human beings for a month in some county. I don't play my stereo at ear-splitting volumes at 2:00AM, in consideration of my neighbors. Obviously the atmosphere is not being used at that time! I wish the Neighbors from Hell had given me that courtesy!

There are other bands that may be used. Yes, you might have to spend some money to do that, but "if you wanna play, you gotta pay". Try talking with folks to see if they might consolidate channels, but ASK, don't demand! Negotiate! It might cost a few bucks to share the expense, but IYWPYGP. Buy them a set of crystals for their repeater! Help them retune duplexors if they need help! But RESPECT THEIR WISHES! It does no good to antagonize them, and may cause much harm. Maybe you might overcome the reason they put up a closed repeater in the first place.

--

Kurt Freiburger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578
Dept. of Computer Science, Texas A&M University DoD #264: BMW R80/7 pilot
"We preserve our freedom using three boxes: ballot, jury, and cartridge."
*** Not an official document of Texas A&M University ***

Date: Tue, 5 Jan 1993 15:15:46 GMT
From: swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <8228@lib.tmc.edu>, <1993Jan02.200308.16355@eng.umd.edu>,
<8309@lib.tmc.edu>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: 430mhz band under th

In article <8309@lib.tmc.edu> jmaynard@oac.hsc.uth.tmc.edu (Jay Maynard) writes:
>In article <1993Jan02.200308.16355@eng.umd.edu> chuck@eng.umd.edu (Chuck Harris -
WA3UQV) writes:
>>If you still can't deal with your
>>"great act of charity", then take your repeater down, and let someone else use

>>the allocation. There are plenty of hams out there who would love to put up an
>>open repeater on your pair!

>

>Fortunately for reason, the FCC disagrees. I suggest you reread 97.205(e).

What does limiting user control of ancillary functions have to do with
anything in this discussion?

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				emory!ke4zv!gary@gatech.edu

Date: Tue, 5 Jan 1993 16:56:51 GMT
From: elroy.jpl.nasa.gov!oak!laborde@uunet.uu.net
To: info-hams@ucsd.edu

References <8319@lib.tmc.edu>, <1ialnnINNt37@transfer.stratus.com>,
<8323@lib.tmc.edu>
Subject : Re: Closed repeaters

In article <8323@lib.tmc.edu> jmaynard@oac.hsc.uth.tmc.edu (Jay Maynard) writes:
>

>...but, since there are hundreds of lanes, changing lanes to one that doesn't
>have someone's Porsche in it is not only possible but easy.

>

The problem is, all the other lanes are blocked by other peoples' parked
Porsches as well, and there are very few open lanes left.

>Fortunately, the FCC disagrees with you.

Actually, I think the FCC prohibits exclusive "ownership" of a frequency pair.
They agree that you don't have to let someone else use your EQUIPMENT if you
don't want to.

>Actually, no, they don't. Their license fee goes strictly towards the expenses
>of processing their license. Nothing more.

How do you know this? My impression was that broadcasters pay a LOT for their
license, more than could possibly be required for processing.

[...]

>Sorry, but this doesn't wash either. You're demanding that Jim change his
>Porsche into a public bus, just liek all the public busses in all the other
>lanes. Are you going to pay for it? If not, then what gives you the right to
>take his property?

I didn't get this message at all. I thought that Mark was demanding that Jim park his Porsche in the garage when he is not using it so that a public bus could use the lane. It also seems Mark and others understand that when Jim is ready to go somewhere, he has first dibs on the lane (as long as he doesn't "run the bus off the road").

[...]

>Some repeaters have traps for the unwary. Linked repeater systems, for
>example, are extremely confusing to the uninitiated, as well as being
>expensive to set up and maintain. Others have sophisticated control systems
>driving alll manner of accessories; a careless touch tone at the wrong time
>can being the whole thing crashing down on your head. You would have all such
>repeaters open to every ham. The net effect of that would be lowering all
>repeaters to the lowest kerchunk-box common demoninator. What ever happened to
>experimentation?

Neither Mark nor most of the other "anti-closed" posters have been advocating that all repeaters be made open. It is the FREQUENCY space we are talking about, not the machinery. If a repeater that can cause so much mayhem is left unprotected on a frequency where anyone can access it, then that is just plain stupid. At the very least it should be protected by DTMF access.

>You're demanding that Jim hand the keys to his Porsche to anyone who comes
>along and asks. Are you prepared to buy the machine from him? If not, then ho
>dare you tell him how to run it?

Again, you seem to be (deliberately?) misunderstanding the messages. It's not use of the machine that is the issue, just use of the frequency.

[...]

>Letting someone who doesn't like me prevent me from using my repeater -
>something that has happened regularly in the Houston area - is silly and
>wrong, but it's exactly what you're advocating: by your standards, someone ho
>doesn't like Jim merely needs to appear on his repeater, thus forcing him to
>either let the guy use it or deprive himself of it.

Mark isn't advocating it, it's just that the regs allow it and that's the unfortunate truth. Even if the regs did allow exclusive ownership of a frequency pair, there is nothing to prevent some miscreant from doing it. It's called jamming and it renders many repeaters here unusable too, even open ones. But guess what, they can't keep it up 24 hours/day so the repeaters are

eventually usable.

Note for Tad Gee, I didn't need to be an Extra or copy 50 wpm to read and understand what these guys were saying. Maybe you should make your posts in CW so that only your friends will be able to participate.

Date: Tue, 5 Jan 1993 15:31:48 GMT
From: swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Jan02.200308.16355@eng.umd.edu>, <C0A7J9.7tL@NeoSoft.com>, <C0CrKE.HFE@hpuerca.atl.hp.com>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: 430mhz band under th

In article <C0CrKE.HFE@hpuerca.atl.hp.com> jab@hpuerca.atl.hp.com (Alan Barrow) writes:

>
>An HF net will gripe loudly, but will slide over 2-3Khz if someone is on
>the net frequency. They may ask if the station would move, but they will
>not (legally) start a net in a freq that is in use.

Unless their callsign is W1AW or K1MAN. In that case they'll just start *broadcasting* regardless of pre-existing activity on the frequency. :-(

Gary

--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | | emory!ke4zv!gary@gatech.edu

End of Info-Hams Digest V93 #19
